REMARKS

Claims 1-4 remain pending in this application. Each of the examined claims is believed to define an invention that is novel and unobvious over the cited references. Favorable reconsideration of this case is respectfully requested.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being patentable over U.S. Patent Number 5,777,761 to Fee in view of U.S. Patent Number 6,111,675 to Mao further in view of U.S. Patent Number 6,701,085 to Muller.

Independent claims 1 and 3 now recite that a plurality of operating-system optical transmission units are associated with one standby-system optical transmission unit and a plurality of operating-system optical receiving units are associated with one standby-system optical receiving unit.

Accordingly, a single common standby-system operating-system optical transmission unit is associated with a plurality of operating-system optical transmission units, and a single common standby-system optical receiving unit is associated with a plurality of operating-system optical receiving units. Please see, the present specification, for example, at Figs. 18, 19, 21, and 24, and page 43, line 11 to page 46, line 10. Therefore, the claimed system has a simple structure. Such a structure reduces manufacturing costs and improved the reliability of the system.

On the other hand, according to Fee system, a plurality of standby-system operating-system optical transmission units are associated with a plurality of operating-system optical transmission units, and a plurality of standby-system optical receiving units are associated with a plurality of operating-system optical receiving units. Therefore, the system of Fee has a complicated structure, which is different from the claimed system.

Furthermore, independent claims 1 and 3 now recite "such that said standby-system optical transmission unit is configured to transmit transmission signals using a transmission wavelength component different from that of the operating-system transmission units associated with a wavelength component transmission defect" and "wherein said standby-system optical receiving

unit is configured to receive a receive wavelength component different from that of the operating-system receive units associated with a wavelength component receive defect".

Generally, if the wavelength equivalent filter in an optical amplifier is deteriorated, the wavelength component of a optical transmission unit and/or a optical receiving unit will be wrong.

According to the claimed system, a signal can always be transmitted correctly, even if the wavelength component of a standby-system optical transmission unit and/or a standby-system optical receiving unit is wrong.

On the other hand, the Fee system uses signals using a same transmission wavelength component as that of the operating-system transmission unit associated with a wavelength component transmission defect, as signals of the standby-system transmission unit. Such a system can not transmit a signal correctly, if the wavelength component of a standby-system optical transmission unit and/or a standby-system optical receiving unit is wrong.

Muller does not supplement Fee to teach or suggest the claimed invention. The Muller system uses a wavelength from the protection signal which is different from those of the working transmission signal to take out the signal of the specifying wavelength out of the multiplexed signal. The claimed system uses a wavelength component different from transmission signals of the operating-system transmission units to transmit the transmission signals instead of the operating-system transmission units defected. The purpose and teaching of Muller is different from the claimed invention.

Dependent claim 2 recites additional patentable features. In claim 2, the word "distribute" is different from a word "re-route" in reference Fee.

The word "distribute" in claim 2 means to "distribute the transmission signals which had been distributed to the wavelength component related to a defect to another and normal wavelength component".

On the other hand, reference Fee explains in relation to Fig. 2, that the Fee system re-routes the electrical signals from the failed optical transmitter to a protect, or spare, optical transmitter $124p_1$ and $124p_2$ (step 210), and re-routes the light wave signals from the failed optical receiver to a

protect, or spare, optical receiver $126p_1$ and $126p_2$ (step214). However, the Fee system will perform either of following two actions if a defect occurs in the wavelength components of a specific zone, that is, if a defect occurs in a transmission unit, as a matter of fact. The first action is that the Fee system re-routes the electrical signals from the failed optical transmitter to a protect, or spare, optical transmitter $124p_1$ and $124p_2$, and re-routes the light wave signals from the failed optical receiver to a protect, or spare, optical receiver $126p_1$ and $126p_2$. The second action is that the Fee system changes the failed optical transmitter and the failed optical receiver into a wavelength selection type transmitter and a wavelength selection type receiver.

However, these actions have the following faults. That is, in the first action, the Fee system requires transmitters and receivers corresponding to all the wavelength components to thereby increase manufacture cost of his system. In the second action, since a defect is unsolvable only by changing a transmitter and a receiver, a plural of defects may occur doubly in his system. Claim 2 overcomes these deficiencies the transmission signals.

In claim 4, the claimed system transmits surveillance information and relief information through a normal network. Therefore, a signal can be transmitted always correctly.

On the other hand, the Mao system may be unable to transmit a signal correctly. That is, the Mao system transmits a telemetry signal and a main signal in a same optical fiber as shown in Fig. 2. As for such a system, the wavelength component of the both sides of a telemetry signal channel and a main signal channel may be wrong when a defect occurs in the optical fiber. Therefore, the Mao system may be unable to transmit a signal correctly.

In view of the above, it is clear that the cited references fail to teach or suggest the claimed invention. Therefore, the withdrawal of this rejection is respectfully requested.

If the Examiner is of the opinion that the prosecution of this application would be advanced by a personal interview, the Examiner is invited to telephone undersigned counsel to arranged for such an interview.

The Commissioner is authorized to charge any fee necessitated by this Amendment to our Deposit Account No. 220-0261.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

By _____

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